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ABSTRACT

Research has indicated that teachers with a humanistic orientation have fewer problems with classroom discipline and are less subject to stress than are those with an authoritarian approach. An investigation of teacher stress focused upon teachers' personality, ideology, gender, age, locus of control, and pupil control orientation. Participants in the study were 130 elementary and secondary teachers school teachers. Teacher responses' were obtained from the Pupil Control Ideology Form, Teacher Locus of Control Scale, and Teacher Occupational Stress Factor Questionnaire. Five factors frequently implicated in teacher stress were investigated: professional inadequacy, principal-teacher professional relationship, collegial relationships, group instruction, and job overload. It was hypothesized that authoritarian pupil control orientation would be related to high teacher stress and that internal locus of control would be related to low teacher stress. Findings indicated that an authoritarian pupil orientation was associated with high stress for four of the five stress factors. An external locus of control was associated with stress for three of the five factors, and male teachers tended to have a more authoritarian approach than female teachers. These results are discussed with recommendations for future research. (JD)

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# Teacher Characteristics As Related to Five Dimensions of Teacher Stress, Sex and Age

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Teacher Characteristics As Related to Five
Dimensions of Teacher Stress, Sex, and Age

The purpose of the present study was to investigate the relationships between two personal factors postulated to be related to teacher stress and five dimensions of teacher stress, as well as sex and age. The two personal factors were pupil control orientation and teacher locus of control. An authoritarian pupil control orientation was found to be associated with high stress for four of the five stress factors; an external locus of control was associated with high stress for three of the five factors. The group instruction stress factor was the most meaningful in relationship to both pupil control orientation and locus of control.

While teacher stress is a nationwide concern, it is a relatively new area of empirical research. Thus, the teacher stress phenomenon remains vague (Pettegrew & Wolf, 1982a). Available data increasingly indicate that stress within the teacher profession may effect the school as an organization, teacher performance, and the physical and emotional well-being of the teacher and her/his family (Kryiacou & Sutcliffe, 1977). Knowledge of the relationships between stress and other teacher characteristics can help improve understanding of teacher stress and prevention/intervention practices (Kaiser & Polczynski, 1982). Thus, the present study investigated the relationships between selected teacher characteristics and dimensions of teacher stress, sex, and age.

Teacher Stress

While stress studies were initially directed toward industrial organizations within the private sector, researchers have come to believe that stress may be especially problematic among human service professions, particularly the teaching profession (Kryiacou & Sutcliffe, 1977, 1978; Pettegrew & Wolf, 1982b). High teacher stress may result in frustration, aggression, anxiety, and/or avoidance behaviors (Kaiser & Polczynski, 1982). Facets of teacher performance, such as creativity, classroom management, and implementation of educational techniques, may suffer when teachers experience high levels of stress (Kaiser & Polczynski, 1982; Solomon, 1960).

Hunter (1977), in her address at the annual meeting of the American Association of School Administrators, included teaching as one of the three most potentially stressful occupations. Survey data support her claim. In 1938 37.5% of a nationwide sample of teachers indicated that they were seriously worried and nervous (NEA, 1938), while stress plagued 78% of the

teachers surveyed more recently by the NEA (Coates & Thoresen, 1976).

Pettegrew and Wolf (1982a) noted that "one must assume that degree of stress is a function of the number and mix of teaching events" (p. 376). Thus, it is difficult to determine exactly what factors will, in what combination, result in a high level of stress for a particular individual. Factors reported by teachers as being troublesome or stressful have included: student discipline, student attitudes, physical violence, inadequate preparation time, lack of resources, incompetent administration, lack of clear role definition, and heavy work loads (Beasley, Myette, & Serna, 1983; Chichon & Koff, 1978; Golladay & Noel, 1978; Olander & Farrell, 1970). Note, however, that none of these studies have investigated possible relationships between teacher characteristics and stress.

Kaiser & Polczynski (1982) identified factors within educators themselves as an important potential source of excess stress, and noted a need for further research in this area. Teacher personality, ideology, sex, and age are important factors to consider when investigating teacher stress. While little research has been done concerning these characteristics, some researchers have found higher stress levels among younger age groups (Alexander, Adams, & Martray, 1983; Kryiacou & Sutcliffe, 1978).

Pupil Control Orientation

Pupil control orientation can be conceptualized as a continuum ranging from authoritarian to humanistic. Teachers with an authoritarian pupil control orientation stress the maintenance of order, impersonality, one-way communication, distrust of students, and a punitive, moralistic attitude. Teachers with a humanistic orientation emphasize the psychological

and sociological bases of learning and behavior, an accepting, trusting view of students, and confidence in students' ability to be self-disciplined and responsible. An individual teacher's pupil control orientation may fall anywhere between these two extremes. Research indicates that teachers with a humanistic orientation have fewer problems with classroom discipline and are able to foster interest in the learning process (Kounin & Gump, 1961; Lunenberg & O'Reilly, 1974). In addition, a humanistic orientation to pupil control has been found to be related to low-dogmatism, acceptance of others, and teacher creativity (Brenneman, 1974; Halpin, Goldenberg, & Halpin, 1974; Victor, 1976).

In an earlier study, the authors investigated personality characteristics and self-concept of preservice teachers in relationship to their pupil control orientation (Halpin, Halpin, & Harris, 1982). A differentiating self-concept, personality profile for authoritarian and humanistic educators was found in this study, based on responses to the Sixteen Personality Factor Questionnaire, the Tennessee Self-Concept Scale, and the Pupil Control Ideology Form. Based on the results of this study, humanistic preservice teachers could be characterized as emotionally mature, realistic about life, expedient, attentive to people, cheerful, imaginative, adaptable, easy-going, and high in self-concept. Further, the results indicated that the humanistic preservice teacher could handle wear and tear in emotional situations and was less susceptible to stress. Generally opposite personality characteristics and view of self were found to characterize the teacher trainee with an authoritarian orientation. These educators were characterized as low in frustration tolerance, easily upset and annoyed, exacting in character, responsible, planful, conventional, rule bound, overwrought, moddy, and low in self-concept.

While the personality characteristics of humanistic preservice teachers indicated that they should be less susceptible to stress, no research investigating relationships between pupil control orientation and dimensions of stress among inservice teachers has been done. It was hypothesized in the present study that an authoritarian pupil control orientation would be related to high teacher stress, while an humanistic orientation would be related to low teacher stress. Thus, both the bivariate and multivariate relationships between pupil control orientation and measures of teacher stress, sex, and age are reported. In addition, the moderating influence of sex and age on the relationship between pupil control orientation and measures of teacher stress is discussed.

Locus of Control

A number of personal factors have been postulated to be related to how one reacts to potential stressors (Birchfield, 1979; Dohrenwend & Dohrenwend, 1978). Perception of personal control over the stressor is one of them (Frankenhaeuser, 1975). If the person feels in control and capable of handling the situation, stress is minimum (Cox, 1980). However, if the person feels helpless and unable to master the situation, stress will be severe (Lanzarus, 1971, 1976).

This notion that feeling in control of one's fate will render environmental situations less threatening is theoretically sound. However, there is little empirical research testing this theoretical postulation. Thus, a further purpose of the present study was to investigate the relationship between teacher stress and teacher locus of control.

The internal-external locus of control construct described by Rotter (1966) was the basis for the locus of control measure. However, the control domain was limited to teaching and the measure used was one of

teacher locus of control. Teacher locus of control may be described as:

> When an event which is related to a teacher's profession, and which follows some action by the teacher, is perceived by that teacher as not contingent upon his/her actions, but is perceived as due to luck, chance, fate, as under the control of powerful others, or as the result of complex, unpredictable forces, then this is labeled a belief in external control. On the other hand, if the teacher perceives that an event related to his/her teaching profession is contingent upon his/her own behavior, this is labeled a belief in internal control (Hall, et al., 1980, p.2).

It was hypothesized that an internal locus of control would be related to low teacher stress while an external locus of control would be related to high teacher stress. Both the bivariate and multivariate relationships between locus of control and the five measures of teacher stress, sex, and age were investigated. In addition, the question of whether or not sex and/or age moderated the relationship between locus of control and the five stress measures was considered.

## Method

### Subjects

One-hundred and thirty full-time teachers served as subjects for this study. Subjects were drawn approximately equally from three states: Kansas (52), Michigan (31), and Alabama (47). Of the 130 subjects, 97 were female and 33 were male. Subjects' ages ranged from 23 to 65 ($\bar{x}$ = 35.39); years of teaching experience ranged from 1 to 39 ($\bar{x}$ = 10.19). Current teaching assignments included: elementary (19%), junior high (18%), senior high (43%), and special education (19%). All subjects were enrolled in university courses; the large majority were working toward a master's

degree. All subjects completed the Pupil Control Ideology Form (Willower, Eidell, & Hoy, 1967) the Teacher Locus of Control Scale (Hall, et al, 1980), and the Teacher Occupational Stress Factor Questionnaire (Clark, 1980) during March or April.

Procedures

The instruments were administered by course instructors following standardized procedures. In all cases, responses to the questionnaires were anonymous. Scoring was done by the researchers following the objective scoring procedures outlined in the respective test manuals.

Pupil Control Ideology Form. The Pupil Control Ideology Form (Willower, Eidell, & Hoy, 1973) contains 20 statements which represent facets of school life. Respondents react to each statement on a 5-point, Likert-type scale. The responses are scored from 1 (strongly agree) to 5 (strongly disagree). The total score on the instrument represents the respondent's pupil control orientation.

Summarizing several validity studies, Willower, et al. (1973) reported that teachers' reports of their pupil control orientations were typically congruent with classifications by principals of these teachers with regard to their control orientations. Split-half and test-retest reliability coefficients have been reported ranging from .86 to .95 (cf. Halpin, et al., 1974; Willower, et al., 1973).

Teacher Locus of Control Scale. The Teacher Locus of Control Scale is a 24-item Likert-type scale with four response choices: strongly agree, agree, disagree, strongly disagree. Twelve of the 24 items are oriented toward an internal locus of control and 12 toward an external locus of control. The total score of the instrument may range from 24 (internal) to 96 (external).

The authors (Hall et al., 1980) reported coefficient alpha internal consistency of .85 using scores of 111 practicing teachers enrolled in graduate educational measurement courses. A coefficient alpha internal consistency reliability of .78 was obtained using the responses of the subjects in the present study.

Teacher Occupational Stress Factor Questionnaire. The TOSFQ consists of 30 items which assess teachers' perceptions of occupational stress (Clark, 1980). The initial validation study indicated the existence of five factors: Professional Inadequacy (SPI), Principal-Teacher Professional Relationships (STP), Collegial Relationships (SCR), Group Instruction (SGI), and Job Overload (SJO). Internal consistency for the five factors ranged from .93 to .98 in the validation study. The likert-type items are rated on a five-step scale from not stressful to extremely stressful.

## Results

### Pupil Control Orientation

Pearson product moment and stepwise multiple correlation analyses were used to determine the bivariate and multiple correlations between pupil control orientation, the five stress factors, sex, and age. Internal consistencies, corrected by the Spearman-Brown Formula, for the PCI and five TOSFQ factors are presented in Table 1.

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Insert Table 1 about here

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Pearson Product moment correlations between the PCI measure and the following four stress factors were significant: group instruction, professional inadequacy, job overload, and principal-teacher relationship

(see Table 2). All of the correlations between the PCI and the stress factors were negative; high stress was associated with authoritarian pupil control orientation. In addition, a significant negative correlation existed between PCI scores and sex (see Table 2). Male subjects tended to have lower scores on the PCI, indicating an authoritarian orientation. No significant Person product moment correlations existed between either sex or age and the five stress factors ($p. > .05$).

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Insert Table 2 about here

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A stepwise multiple regression analysis was used to investigate the multivariate relationship between pupil control orientation and the five teacher stress factors as well as sex and age. The regression analysis was divided into three stages, with the five stress variables entered in the first stage. A significant multiple correlation of .35 was obtained between PCI score and the group instruction factor ($F1, 128 = 17.80$, $p. < .01$). The addition of the other four stress factors, both singley and in combination, was of no practical or statistical significance ($\underline{p} > .05$) (see Table 2).

Sex and age were entered into the equation at the second stage (see Table 2). The addition of sex significantly increased the multiple $\underline{R}$ ($F1, 123 = 9.85$, $\underline{p} < .01$), while the addition of age had no significant effect ($F1, 122 = .11$, $\underline{p} > .05$). The ten interaction terms, representing the combinations of stress factors with sex and age, were entered at the third stage. The increase in the multiple $\underline{R}$ was not significant ($F10, 121 = .80$; $\underline{p} > .05$).

Teacher Locus of Control

In investigating the bivariate relationships between teacher locus of control, teacher stress, sex, and age, Pearson correlation coefficients were computer between the locus of control measure and scores on each of the five stress factors, sex, and age, respectively. Of the resulting correlation coefficients reported in Table 3, three were significant ($p < .01$).

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Insert Table 3 about here

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Scores on the Group Instruction factor, the Professional Inadequacy factor, and the Principal/Teacher Professional Relationships factor correlated .27, .24, and .23, respectively, with scores on the Teacher Locus of Control Scale. Scores on the Job Overload and the Collegial Relationships stress factors did not correlate significantly with the locus of control measure nor did sex and age ($p > .05$).

A three-stage stepwise multiple correlation analysis was executed to look at the multivariate relationship between teacher locus of control and the five teacher occupational stress factors as well as sex and age. At the first stage, the five stress variables were entered into the equation. Here the five stress factors yielded a multiple correlation coefficient of .31 ($p < .05$), with the locus of control measure. However, the Group Instruction variable, which correlated .27 with the locus of control measure, was the dominant variable in this regression equation. Even though the multiple $R$ was statistically significant at every step of the equation ($p < .05$) the addition of the other four stress variables increased the magnitude of the coefficient only .04 correlational points ($p > .05$).

At the second stage, sex and age were entered into the equation. As can be seen in Table 1, the multiple $R$ increased from .31 to .32 ($p > .05$).

Ten interaction terms, representing the different combinations of stress factors with sex and age, were then entered into the equation at the third stage. Here the 10 variables representing the interactive effects increased the multiple R to .40 ($p > .05$), which was not significant.

## Discussion

### Pupil Control Orientation

Previous research has dealt primarily with three aspects of teacher stress: task-based stress, role-related stress, and work events stress (Pettegrew & Wolf, 1982a). Such research has compared stress levels to tasks the teacher must perform, specific circumstances or events that occur, and how well teachers' expectations of the teaching role fit the actual experience of fulfilling that role. The present study recognizes the importance of teacher characteristics, such as personality, ideology, locus of control, sex and age, when investigating teacher stress.

Previous research concerning the relationships between personality characteristics, self-concept, and pupil control orientation suggested that the humanistic preservice teacher was less susceptible to stress (Halpin, Halpin, & Harris, 1982). The present study followed up on this proposition by investigating the relationships between pupil control orientation and dimensions of teacher stress, sex, and age among practicing teachers. The results indicated that, for four out of five factors, a higher level of stress is found among practicing teachers with an authoritarian orientation. The five factors of teacher stress investigated were: professional inadequacy, principal-teacher professional relationships, collegial relationships, group instruction, and job overload. Of these five factors, only collegial relationships was not significantly related to pupil control orientation. The five stress factors investigated,

however, were relatively independent of sex and age.

Of the stress factors, group instruction was the only significant contributor in the multiple regression analysis, accounting for 12% of the variance in pupil control orientation. Thus, the other four factors were of no practical or statistical significance in accounting for pupil control orientation. However, all of the bivariate correlations represent non-chance relationships and thus provide important information. The significant contribution of sex to the multiple regression analysis indicated that sex accounts for a significant amount of the variance in PCI score, after all of the variance in PCI scores related to the five stress factors has been accounted for. Male teachers tended to have a more authoritarian orientation than female teachers.

Willower, et al. (1967) developed the pupil control orientation concept and characterized the teacher with a humanistic orientation as accepting, trusting, and confident in her/his student's ability to be self-disciplining and responsible. The authoritarian teacher was characterized as stressing the maintenance of order, impersonality, one-way communication, distrust of students, and a punitive, moralistic attitude. Group instruction was the stress dimension most meaningful in relationship to pupil control orientation. Teachers with an authoritarian orientation tended to report experiencing higher levels of stress in dealing with group instruction, as compared to teachers with a humanistic orientation. Inspection of the TOSFQ indicated that the group instruction factor measures the level of stress associated with: having students in class who talk constantly, having to tell students the same things over and over, planning and organizing learning activities for wide ability ranges, feeling that students do not adequately respond to teaching, and feeling that adequate

control over students is not attained. It appears both logical and consistant that the authoritarian teacher should experience higher stress when dealing with facets of group instruction.

Teacher Locus of Control

As hypothesized, teacher locus of control was related to teacher stress. The multiple correlation between the combined stress factors and locus of control was significant; high stress was associated with an external locus of control. Group Instruction made the greatest contribution to this multiple correlation, accounting for approximately 9% of the variance. At the bivariate level, Group Instruction, Professional Inadequacy, and Principal/Teacher Professional Relationships were related to locus of control. The relationships between locus of control and the stress measures of Job Overload and Collegial Relationships, respectively, were not significant, as was true for sex and age. Also, the relationship between locus of control and a linear combination of the five stress variables was not moderated by sex and age.

A consideration of the behavioral indicators of locus of control on the Teacher Locus of Control Scale and the behaviors associated with each of the stress factors on the Teacher Occupation Stress Factor Questionnaire make these results more meaningful.

The teacher locus of control measure was based upon seven behavioral manifestations thought to be indicative of the construct. These seven behavioral indicators of an internal locus of control follow. (The statements become descriptions of an external locus of control orientation when the verbs in parentheses are substituted.)

--Discounts (stresses) the importance of luck or fate in his/her professional life;

--Accepts (tends not to accept) responsibility for the educational consequences of his/her actions;

--Sees (does not see) a clear connection between effort and payoff in teaching;

--Stresses (discounts) the importance of ability and hard work in successful teaching;

--Tends to be (tends not to be) goal-directed and task-oriented in his/her teaching behaviors;

--Feels (does not feel) influential in his/her educational environment;

--Discounts (stresses) the importance of luck or fate in the professional life of other educators (Hall et al., 1980, p. 2).

In short, the internal teacher apparently believes that he/she is influential in the classroom, accepts the responsibility for her/his actions and works hard to achieve education goals. The external teacher, on the other hand, feels that he/she has little control over what happens, does not seem to value planning, ability, or effort, but instead attributes educational outcomes to luck, fate, and chance.

Teachers in this study for whom group instruction was not stressful seemed to feel that they had adequate control of their students, they planned and organized a wide range of learning activities, and felt that their students profited from their teaching.

Teachers who felt professionally adequate did not find discipline problems overly stressful nor did they have trouble motivating the unmotivated. Working with parents did not seem to bother them nor did the salary they received for their work.

Teachers whose relationships with their principals were not stressful felt supported and valued by their principals who gave them authority to carry out their responsibilities. These principals had insight into classroom

problems and could be talked to openly about school related matters.

In short, those teachers experiencing the least stress were those who felt that they were professionally capable of helping their students learn and they had been given the responsibility of doing so. They were teachers with an internal locus of control.

## General Discussion

It is important to note that the group instruction stress factor was the most meaningful in relationship to both pupil control orientation and teacher locus of control. Thus, teachers with an authoritarian orientation and teachers with an external locus of control reported the most stress in answers to items closely associated with the act of teaching (including planning, organizing, and classroom management). Pupil control orientation and teacher locus of control are only two teacher characteristics related to teacher stress. However, the results of this study have important implications for teacher training and inservice programs. Future and practicing teachers should be aware of the differences between humanistic and authoritarian orientations and their own inclinations. Then, the implications of both orientations can be explored. Teachers should also be aware of the negative effects stress can have on themselves, their students, and their teaching performance (Clark, 1980; Kaiser & Polczynski, 1982; Cryiacou & Sutcliffe, 1978; Solomon, 1960). Similarly, teachers should understand the concept of locus of control, their own inclinations, and the relationship between stress and locus of control.

Future research. While this study indicates an association between high stress and an authoritarian orientation, it does not explore possible causal relationships. It is not possible to ascertain whether an authoritarian orientation leads to higher stress, whether stress experienced

in the teaching profession results in an authoritarian perspective, or whether both high stress and an authoritarian orientation are causally linked to other variables. However, since previous research indicates that authoritarian and humanistic orientations occur among teachers-in-training, it seems likely that if a causal relationship does exist, an authoritarian orientation contributes to teacher stress. Similarly, it may be that teachers with an external locus of control perceive much of their environment as being under the control of complex, unpredictable forces, and they, feeling out of control, experience much stress. On the other hand, it may be that these teachers, having been subjected for a prolonged period of time to stressful events, have become overwhelmed and made helpless. They may have depleted all psychological and physiological energy potentially available to deal with the stressful events and burnout has occurred. Longitudinal research, following teachers-in-training into their first years of teaching and investigating multiple variables related to teacher stress, would be helpful.

A second limitation of the present investigations involves the use of self-appraisals. Theories of self-perception and research on self-assessment indicate that individuals can accurately observe their own behavior and that self-appraisals are at least as predictive as other assessment procedures (Shrauger & Osberg, 1981). Shrauger and Osberg (1981) have argued that greater attention should be given to self-assessment, and that the conditions under which self-assessments would be particularly appropriate should be carefully examined. Self-assessment appears to be an appropriate measurement technique for both teacher stress and ideology (cf. Kryiacou & Sutcliffe, 1977, 1978; Pettegrew & Wolf, 1982a; Shrauger & Osberg, 1981; Willower et al., 1973). However, self-report data are only one of many

useful assessment techniques (Pettegrew & Wolf, 1982). Future research on the relationships between teacher characteristics and stress should consider other sources of data, including interviews, behavioral observation, and so on. Teacher stress is a significant issue which bears further investigation.

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Table 1

Corrected Reliabilities for
the PCI and TOSFQ

| Instrument | # of Items | Corrected r |
|---|---|---|
| PCI | 20 | .89 |
| TOSFQ: | | |
| SPI | 7 | .86 |
| STP | 7 | .93 |
| SCR | 7 | .90 |
| SGI | 5 | .84 |
| SJO | 4 | .87 |

Table 2

Multiple Regression Analysis and Correlations For Pupil Control Ideology, Teacher Occupational Stress Factors, Sex, and Age

| Variable | Multiple R | Multiple R Square | Pearson r |
|---|---|---|---|
| Pupil Control Ideology | | | |
| Stress - Group Instruction | .35** | .12 | -.35** |
| Stress - Professional Inadequacy | .37 | .14 | -.29** |
| Stress - Collegial Relationships | .39 | .15 | -.07 |
| Stress - Teacher/Principal Relationships | .39 | .15 | -.15* |
| Stress - Job Overload | .39 | .15 | -.17* |
| Sex | .46** | .21 | -.26** |
| Age | .46 | .21 | .06 |
| Interaction Stress X Sex Stress X Age | .51 | .26 | |

*$p < .05$

**$p < .01$

Table 3

Reliability and Correlations for the Teacher Locus of Control Scale and Teacher Occupational Stress Factor Questionnaire, Sex, and Age

| Variable | Coefficient Alpha | Multiple R | Multiple R Square | Pearson r |
|---|---|---|---|---|
| Locus of Control | .78 | | | |
| Stress--Group Instruction | .73 | .27** | .07 | .27** |
| Stress--Professional Inadequacy | .75 | .30** | .09 | .24** |
| Stress--Principal/ Teaching Relationships | .87 | .31* | .10 | .23** |
| Stress--Job Overload | .77 | .31* | .10 | .09 |
| Stress--Collegial Relationships | .82 | .31* | .10 | .15 |
| Sex | | .32* | .10 | .07 |
| Age | | .32 | .10 | .05 |
| Interaction<br>Stress X Sex<br>Stress X Age | | .40 | .16 | |

*p < .05.

**p < .01.